

WHAT IS CLAIMED IS:

1. A method for receiving control information of a specific broadcast service at UE (User Equipment) in a mobile communication system including at least one UE, a plurality of cells containing the at least one UE, and a RNC
5 (Radio Network Controller) for managing at least one of the plurality of cells and providing other broadcast services via the plurality of cells, comprising the steps of:

- a) checking individual paging indicator channels of the at least one UE, and determining whether a paging signal associated with the broadcast service ;
- 10 b) if the paging signal associated with the broadcast service is detected, receiving the paging signal;
- c) identifying paging information including ID (MBMS Identifier) information allocated to differentiate between the specific broadcast service and the other broadcast services and a paging response indicator for determining a
15 transmission channel scheme associated with the specific broadcast service; and
- d) based on the paging response indicator, establishing a connection set-up between the at least one UE and the RNC.

2. The method as set forth in claim 1, wherein the at least one UE transmits a radio link control connection request message to the RNC when the
20 paging response indicator associated with the broadcast service is set to an ON value.

3. The method as set forth in claim 1, wherein the RNC receives response messages from the at least one UE, depending on the paging response indicator, and establishes a DCCH (Dedicated Control Channel) connection

mode when a number of that at least one UE that transmitted the response messages is less than a predetermined value.

4. The method as set forth in claim 1, wherein the RNC receives the response messages, and establishes an MCCH (Multimedia
5 Broadcasting/Multicast Service (MBMS) Control CHannel) connection mode when a number of the at least one UE that transmitted the response messages is higher than a predetermined value.

5. A method for transmitting control information of a predetermined broadcast service at an RNC (Radio Network Controller) in a mobile
10 communication system including at least one UE (User Equipment), a plurality of cells containing the at least one UE, and the base station controller for managing at least one cell and providing broadcast services via the plurality of cells, comprising the steps of:

a) transmitting paging information over a paging signal including ID
15 (MBMS Identifier) information for differentiating between the predetermined broadcast service and other broadcast services and a paging response indicator for determining a transmission channel associated with the predetermined broadcast service over a predetermined channel for indicating that the at least one UE has been paged;

20 b) recognizing a number of the at least one UE included in the plurality of cells based on receiving a response message from the at least one UE according to the paging response indicator; and

c) determining a transmission channel scheme associated with the predetermined broadcast service based on the number of the UEs in the cell;

25 d) transmitting the predetermined broadcast service to the at least one UE according to the determined transmission channel scheme.

6. The method as set forth in claim 5, wherein the UEs determine a radio link control connection request message to be a response message of the paging response indicator when the paging response indicator associated with the broadcast service is set to an ON value, and transmit the determined RRC
5 message to the RNC.

7. The method as set forth in claim 5, wherein the RNC receives the response message from the at least one UE upon receiving the paging response indicator, and establishes a DCCH (Dedicated Control Channel) connection mode when a number of the at least one UE that transmitted the response
10 messages is less than a predetermined value.

8. The method as set forth in claim 5, wherein the RNC receives the response messages, and establishes an MCCH (Multimedia Broadcasting/Multicast Service (MBMS) Control CHannel) connection mode when a number of the at least one UE that transmitted the response messages is
15 higher than a predetermined value.

9. The method as set forth in claim 5, wherein the RNC time-division-processes the paging information associated with the predetermined broadcast service and the control information associated with the predetermined broadcast service, and transmits the time-division results to the at
20 least one UE over an MCCH (Multimedia Broadcasting/Multicast Service (MBMS) Control CHannel).